

Firmware / Embedded Developer

Zaber manufactures precision motion control equipment for applications such as photonics, biotechnology, aerospace, and semiconductor engineering. For the past 20 years, Zaber has provided powerful motion control solutions for industry and scientific research.

Zaber's firmware developers build the next generation of motion control firmware, targeting high speed and high torque applications which require nanometer accuracy. Our products need to run in real-time – performing advanced signal processing, communication, and motor control – while minimizing complexity for end users. As a firmware developer at Zaber, you will work on projects critical to Zaber's motion control product line.

We are looking for developers with a broad set of technical skills who are ready to tackle meaningful problems in fields such as mechatronics, control systems, robotics, and optics. We value engineers who ask why and go out of their way to broaden their knowledge base.

We believe an effective team is made of contributors with varying levels of experience and diverse strengths. Have you been writing firmware for 10 years or have you just graduated? Are you a specialist who's memorized the C++17 standard or a generalist skilled at both implementation and management? We're excited to hear how your particular strengths could enhance the Zaber Firmware Team.

Responsibilities

In this position, you'll work closely in a team to implement and expand features used to control our actuators and stages. You can expect to:

- Design and implement features in C++ on an ARM microcontroller
- Collect requirements from other teams (e.g. Customer Support or Production) and use them to design new features
- Research and deploy tools to improve our workflow
- Document code and firmware features for developers, internal users, and customers

Qualifications

As a minimum, we're looking for:

- Experience programming in C or C++
- Experience with microcontrollers or other embedded systems
- Familiarity with electronics
- Interest in problem solving, challenges, and the process of learning
- Preference for working collaboratively in an agile team of developers
- Ability to communicate complex ideas to programmers and non-programmers alike
- Dedication to thorough testing and documentation practices

These aren't requirements, but let us know if you have experience with:

- ARM microcontrollers
- Other programming languages
- Assembly and code optimization
- Industrial communication protocols
- Control systems
- Sensors and actuators
- Circuit design and layout
- Digital or analog electronics
- FPGAs
- Trajectory generation or motion planning
- Project or team management
- Technical writing, especially of customer-facing documentation

We'd also like to hear about any other skills you could contribute to our team.

About Zaber

At Zaber, we strive to create an open, friendly, and high-achieving work environment. This is an opportunity to exercise your talents and creativity, both in your work and personal projects: you'll have full access to our electrical equipment and machine shop which includes a waterjet, laser cutter, lathes, mills (both manual and CNC), and numerous other tools.

Find out directly from our employees what it's like to work at Zaber by visiting our Glassdoor profile: <http://tinyurl.com/zaber-at-glassdoor>

How to Apply

If you are viewing this posting on a website other than Zaber's, you may want to visit www.zaber.com/careers to confirm that it's still open. This posting will remain open until filled.

1. Email your cover letter and resume to careers@zaber.com.
2. Please describe an interesting project that you designed and implemented recently. We'd prefer a personal project, but if you choose to describe a team project, please clearly indicate your contribution.
3. If possible, include source code, design documents, schematics/layouts, and/or photos to support your descriptions. We realize this may not always be yours to share!
4. If you feel that it supports your application (especially for recent grads), feel free to include a copy of your academic transcript.